

## REMARKS

Applicant acknowledges the indicated allowability of Claims 4, 5, 9-12, 14-15, 17 and 19. Claim 1 has been canceled without prejudice. Claim 2 is rewritten in independent form including all limitations of base Claim 1.

All claims have been rejected as directed to non-statutory subject matter because they “do[] not involve, use, or advance technological arts (e.g., **processor, computer, electronic computing device**)...(Office Action, page 3 emphasis in original). Each of the claims is directed to resolving scheduling conflicts using “simulated annealing.” Simulated annealing is a well known computer processing technique, and thus each of the claim s involves, uses and advances the technological arts. Applicant notes that the prior art cited in the present application is directed to scheduling problems utilizing the well known method of simulated annealing. Reconsideration and withdrawal of the rejection based on § 101 is requested.

The Office Action asserts that Claims 2-3, 6-8, 13 and 16-19 are unpatentable over Matheson et al., in view of Fabre et al. The Applicants respectfully disagree.

Simulated annealing is a well known processing technique which attempts to optimize the results of a given function. The criteria evaluated in order to optimize the function can vary with the type of problem that is being solved. Fabre is directed to the scheduling of a satellite system based on various constraints and criteria. Fabre utilizes a form of simulated annealing that optimizes a function based upon criteria such as the

planned number of requests, total area corresponding to the planned requests, or total volume corresponding to the planned requests. (Col. 2, lines 1-5.) However, Fabre does not disclose the elements of trip time, total slack, or classifying the problem as a function of these two parameters. Matheson discloses many parameters associated with scheduling trains including total trip time and slack time but does not disclose classifying the scheduling problem, nor determining the classification of the scheduling problem as a function of the two specific parameters recited in Claim 2. Matheson does not disclose any relationship between the total trip time and total slack for use as classifying the problem and the Office Action does not identify why it would be obvious to use only two of the specific parameters disclosed in Matheson in order to classify the problem. There is no suggestion or teaching in either of the cited patents which supports the examiner assertion that classifying the scheduling problem as a function of these two specific parameters improves the quality of the plan obtained or speed of convergence of the solution. Rather, the rejection appears to be a classic case of the hindsight application of the applicant's disclosure. Reconsideration and allowance of Claim 2 is requested.

Claim 3 is directed to the specific relationship between total trip time and slack time, i.e., slack time in excess of a predetermined threshold of total trip time, which drives the classification of the problem. Fabre discloses the combination of several thresholds, none of which is the two specific parameters recited. Again there is no disclosure of how the relationship between total trip time and slack time can be used to improve the quality of the plan or improve the speed of convergence and thus there is no

motivation or suggestion to modify Matheson by Fabre. Reconsideration and allowance of claim 3 is requested.

Likewise ,Claim 6 as amended recites that the classification is dependent upon the resource exception and the total trip time, and Claim 7 is directed to the relationship between resource exception and trip time. For the same rationale discussed above with respect to Claims 2 and 3, respectively, there is no motivation to modify the teachings of Matheson by Fabre in order to classify the scheduling problem with the two specific parameters as recited in Claims 6 and 7.

Claim 8 is rejected as obvious over Matheson and LeSaint. The Office Action cites page 21 ,lines 8-9 as disclosing that recited limitation of “emphasizing cost over resource exception for a predetermined initial period of time”. However, LeSaint discloses that the evaluation always considers cost (with no discussion of emphasizing cost over resource exception) and the passage cited by the examiner describes how the “cost of allocating a task varies as time of arrival or completion of a task changes.” The fact that a cost may vary over time is not a disclosure of “emphasizing cost over resource exception for a predetermined period of time.”

Reconsideration and allowance of Claim 8 is requested.

Claims 13 and 16 are rejected as obvious over Matheson in view of Fabre with the examiner asserting that Fabre discloses weighting using a scaling parameter. The passage cited by the examiner actually states “selecting the opportunities in the **order** determined by the classification” without any disclosure of a weighting function or a

scaling parameter. Clearly, the cited art can not be fairly read as disclosing the use of a scaling parameter to weight two specific factors, resource exception and cost.

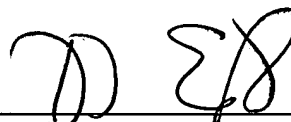
Reconsideration and allowance of Claims 13 and 16 is solicited.

The applicant does not understand the examiner's rejection with respect to Claim 18. The examiner has stated that Matheson discloses reinitializing the search parameters by reducing the number of attempts with no higher energy steps, thereby reducing the level of acceptance of a solution. Applicant reminds the examiner that the present application claims the benefit of the filing date of the Matheson Patent and as such is entitled to the priority date for claimed subject matter initially disclosed in Matheson. The examiner asserts that the limitations of Claim 18 are disclosed by Matheson, and therefore Claim 18 is entitled to the priority date of Matheson and Matheson cannot be used as prior art with respect to Claim 18. Reconsideration and allowance of Claim 18 is requested.

## CONCLUSION

The claims as amended clearly define over the cited art and the obviousness rejection is improper because there is absolutely no motivation or teaching to support the selective combination of prior art as asserted in the Office Action. Reconsideration and allowance of Claims Applicant requests withdrawal of the rejections in view of the above arguments. The Applicant requests allowance of Claims 2-19.

Respectfully submitted,



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Dated: December 22, 2003